

What is claimed is:

2

1. An irrigation unit for irrigating an area with a fluid from a fluid source,
2 the irrigation unit comprising:

a housing;

4

a nozzle that is secured to the housing, the nozzle being in fluid
communication with the fluid source so that fluid from the fluid source is
6 transferred to the nozzle;

an electronic component coupled to the housing; and

8

a power generator that generates electrical energy, the power
generator directly transferring at least a portion of the electrical energy to
10 the electronic component.

2. The irrigation unit of claim 1 wherein the power generator is a
2 turbine type generator.

3. The irrigation unit of claim 1 wherein the power generator includes a
2 turbine that is in fluid communication with the fluid source.

4. The irrigation unit of claim 3 wherein flow of the fluid from the fluid
2 source to the nozzle causes the turbine to rotate and the power generator to
generate electrical energy.

5. The irrigation unit of claim 1 wherein the power generator includes a
2 solar panel that generates electrical energy.

6. The irrigation unit of claim 1 wherein the power generator is
2 positioned near the housing.

7. The irrigation unit of claim 1 wherein the power generator is secured
2 to the housing.

2 8. The irrigation unit of claim 1 wherein the power generator is positioned within the housing.

2 9. The irrigation unit of claim 1 wherein the electronic component is a power storage unit.

2 10. The irrigation unit of claim 1 wherein the electronic component is a control system.

2 11. An irrigation system including a main control system and the irrigation unit of claim 1.

2 12. An irrigation unit for irrigating an area with a fluid from a fluid source, the irrigation unit comprising:

a housing;

4 a nozzle that is secured to the housing, the nozzle being in fluid communication with the fluid source so that fluid from the fluid source is transferred to the nozzle;

an electronic component coupled to the housing; and

8 a power generator that generates electrical energy, the power generator being positioned near the housing, the power generator being electrically connected to the electronic component.

2 13. The irrigation unit of claim 12 wherein the power generator directly transfers at least a portion of the electrical energy to the electronic component.

2 14. The irrigation unit of claim 12 wherein the power generator is a turbine type generator.

15. The irrigation unit of claim 12 wherein the power generator
2 includes a turbine that is in fluid communication with the fluid source and
wherein flow of the fluid from the fluid source to the nozzle causes the turbine
4 to rotate and the power generator to generate electrical energy.

16. The irrigation unit of claim 12 wherein the power generator
2 includes a solar panel that generates electrical energy.

17. The irrigation unit of claim 12 wherein the power generator is
2 positioned near the housing.

18. The irrigation unit of claim 12 wherein the power generator is
2 secured to the housing.

19. The irrigation unit of claim 12 wherein the power generator is
2 positioned within the housing.

20. The irrigation unit of claim 12 wherein the electronic component is
2 a power storage unit.

21. The irrigation unit of claim 12 wherein the electronic component is
2 a control system.

22. An irrigation system including a main control system and the
2 irrigation unit of claim 12.

23. An irrigation unit for irrigating an area with a fluid from a fluid
2 source, the irrigation unit comprising:

a housing;
4 a nozzle that is secured to the housing, the nozzle being in fluid

6 communication with the fluid source so that fluid from the fluid source is
transferred to the nozzle;

8 an electronic component coupled to the housing; and
a power storage unit that stores electrical energy, the power
storage unit being electrically connected to the electronic component.

2 24. The irrigation unit of claim 23 wherein the power storage unit
includes a battery.

2 25. The irrigation unit of claim 23 wherein the power storage unit
includes a capacitor.

2 26. The irrigation unit of claim 23 wherein the power storage unit is
positioned near the housing.

2 27. The irrigation unit of claim 23 wherein the power storage unit is
secured to the housing.

2 28. The irrigation unit of claim 23 wherein the power storage unit is
positioned within the housing.

2 29. The irrigation unit of claim 23 further comprising a power
generator that generates electrical energy, the power generator directly
transferring at least a portion of the electrical energy to the power storage unit.

2 30. An irrigation system including a main control system and the
irrigation unit of claim 23.

2 31. A method for irrigating an area with a fluid from a fluid source, the
method comprising the steps of:
providing a housing;

4 securing a nozzle to the housing, the nozzle being in fluid
communication with the fluid source so that fluid from the fluid source is
6 transferred to the nozzle;
 coupling an electronic component to the housing; and
8 directly transferring electrical energy from a power generator to
the electronic component.

32. The method of claim 31 wherein the step of directly transferring
2 includes the step of rotating a turbine to generate electrical energy.

33. The method of claim 32 further comprising the step of positioning
2 the turbine in fluid communication with the fluid source so that flow of the fluid
from the fluid source to the nozzle causes the turbine to rotate.

34. The method of claim 31 further comprising the step of positioning
2 the power generator near the housing.

35. The method of claim 31 further comprising the step of securing
2 the power generator to the housing.

36. A method for irrigating an area with a fluid from a fluid source, the
2 method comprising the steps of:

 providing a housing;
4 securing a nozzle to the housing, the nozzle being in fluid
communication with the fluid source so that fluid from the fluid source is
6 transferred to the nozzle;
 coupling an electronic component to the housing; and
8 storing electrical energy with a power storage unit that is
electrically connected to the electronic component.

37. The method of claim 36 further comprising the step of securing

2 the power storage unit to the housing.

38. The method of claim 36 further comprising the step of positioning
2 the power storage unit within the housing.